

Applicants: Philip Livingston and Friedhelm Helling  
Serial No.: 08/477,147  
Filed : June 7, 1995  
Page 2

Please amend the subject application as follows:

In the claims:

Please cancel claims 102-120 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in later-filed application. Please add new claims 121-134 as follows:

--121. (New) A composition which comprises:

- Rule (24)
- a) a conjugate of i) a ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) an immunogenic protein-based carrier;
  - b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

- c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in a subject,

wherein the ganglioside derivative is a derivative of a ganglioside selected from the group consisting of GM2, GM3, GD2, GD3, GD3 lactone, O-acetyl GD3 and GT3; and

wherein the immunogenic protein-based carrier is derived from a protein selected from the group consisting of malaria T-cell epitope, an outer membrane protein of Neisseria meningitidis, cationized bovine serum albumin, Keyhole Limpet Hemocyanin, polylysine and human serum albumin;

wherein in the conjugate the ganglioside derivative is conjugated to the immunogenic protein-based carrier

through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative. --

- 110  
--122. (New) The composition of claim 121, wherein the saponin derivable from the bark of a Quillaja saponaria Molina tree is QS-21.--
- 111  
--123. (New) The composition of claim 121, wherein the ganglioside derivative is a derivative of GM2 or GD2.
- 112  
--124. (New) The composition of claim 121, wherein the ganglioside derivative is a derivative of GM2.--
- 113  
--125. (New) The composition of claim 121, wherein the ganglioside derivative is a derivative of GD2.--
- 114  
--126. (New) The composition of claim 121, wherein the amount of the conjugate is an amount between about 1  $\mu\text{g}$  and about 200  $\mu\text{g}$ .--
- 115  
--127. (New) The composition of claim 121, wherein the amount of the conjugate is an amount between about 50  $\mu\text{g}$  and about 90  $\mu\text{g}$ .--
- 116  
--128. (New) The composition of claim 121, wherein the amount of the conjugate is about 70  $\mu\text{g}$ .--
- 117  
--129. (New) The composition of claim 121, wherein the amount of the conjugate is an amount between about 1  $\mu\text{g}$  and about 10  $\mu\text{g}$ .--

Applicants: Philip Livingston and Friedhelm Helling  
Serial No.: 08/477,147  
Filed: June 7, 1995  
Page 4

- ~~118~~  
--130. (New) The composition of claim 121, wherein the amount of the conjugate is about 7  $\mu$ g.--
- ~~119~~  
--131. (New) The composition of claim 121, wherein the amount of the saponin is an amount between about 10  $\mu$ g and about 200  $\mu$ g.--
- ~~120~~  
--132. (New) The composition of claim 121, wherein the amount of the saponin is about 100  $\mu$ g.--
- ~~121~~  
--133. (New) The composition of claim 121, wherein the amount of the saponin is about 200  $\mu$ g.--
- ~~122~~  
--134. (New) The composition of claim 121, wherein the molar ratio of the ganglioside derivative to the immunogenic protein-based carrier is from about 200 to about 1400.--

#### REMARKS

Claims 102-120 are pending in the subject application. Applicants have hereinabove canceled claims 102-120 without prejudice or disclaimer to their right to pursue the subject matter of these claims in a later-filed application and added new claims 121-134. Support for these claims may be found inter alia in the specification as follows: claim 121: page 11, lines 3-27; page 32, lines 1-27; page 76, lines 19-21; page 11, lines 22-28; page 12, lines 23-26; page 19, lines 10-13; page 41, line 16; claim 122: page 12, lines 15-16; claims 123-125: page 12, lines 28-31; claims 126-130: page 13, lines 8-26; claims 131-133: page 14, lines 1-5;